a) said homology is at least about 90% identity and said portion is at least about 9 amino acids;

b) said homology is at least about 80% identity and] said [portion] sequence of 100% identity is over at least [about] 17 contiguous amino acids[; or

c) said homology is at least about 70% identity and said portion is at least about 25 amino acids].

3. The composition of matter of Claim 1, wherein said:

a) 499E9 comprises a mature sequence of Table 1 [see SEQ ID NO: 1] ; or

b) protein or peptide [:

i) ] is from a [warm blooded animal selected from a] mammal [, including a rodent;

ii) comprises at least one polypeptide segment of SEQ ID NO: 2;

iii) exhibits a plurality of portions exhibiting said identity;

iv) is a natural allelic variant of 499E9;

v) has a length at least about 30 amino acids;

vi) exhibits at least two non-overlapping epitopes which are specific for a mammalian 499E9;

vii) exhibits a sequence identity at least about 90% over a length of at least about 20 amino acids to a rodent 499E9;

viii) exhibits at least two non-overlapping epitopes which are specific for a rodent 499E9;

ix) exhibits a sequence identity at least about 90% over a length of at least about 20 amino acids to a rodent 499E9;

x) is glycosylated;

xi) is a synthetic polypeptide;

xii) is attached to a solid substrate;

xiii) is conjugated to another chemical moiety;

xiv) is a 5-fold or less substitution from natural sequence; or

xv) is a deletion or insertion variant from a natural sequence].

4. A composition of matter of Claim 1 which is sterile [comprising :

a) a sterile 499E9 protein or peptide of Claim 1; or

b) said 499E9 protein or peptide of Claim 1 and a carrier, wherein said carrier is:

i) an aqueous compound, including water, saline, and/or buffer; and/or

ii) formulated for oral, rectal, nasal, topical, or parenteral administration].

5. The fusion protein of Claim 1, comprising:

a) mature protein comprising sequence of Table 1 (see SEQ ID NO: 2);

b) a detection or purification tag, including a FLAG, His6, or Ig sequence; or

c) sequence of another [TNF] tumor necrosis factor ligand protein.

6. A kit comprising a [protein or polypeptide of Claim 1, and:

a) a] compartment comprising said [protein or] polypeptide of Claim 1 [; and/or

b) ] and instructions for use or disposal of reagents in said kit.

11. An isolated or recombinant nucleic acid encoding a [protein or peptide] polypeptide or fusion protein of Claim 1, wherein [:

a) ] said 499E9 protein is from a mammal [, including a rodent; or

b) said nucleic acid:

i) encodes an antigenic peptide sequence of Table 1;

ii) encodes a plurality of antigenic peptide sequences of Table 1;

iii) exhibits at least about 80% identity to a natural cDNA encoding said segment;

iv) is an expression vector;

v) further comprises an origin of replication;

vi) is from a natural source;

vii) comprises a detectable label;

viii) comprises synthetic nucleotide sequence;

ix) is less than 6 kb, preferably less than 3 kb;

x) is from a mammal, including a rodent;

xi) comprises a natural full length coding sequence;

xii) is a hybridization probe for a gene encoding said TNF-ligand family protein; or

xiii) is a PCR primer, PCR product, or mutagenesis primer].

14. A kit comprising [said nucleic acid of Claim 11, and:

a) ] a compartment comprising said nucleic acid <u>of Claim 11</u> [;

b) a compartment further comprising a 499E9 protein or polypeptide; and/or

c) ] <u>and</u> instructions for use or disposal of reagents in said kit.

15. A nucleic acid which [:

a) ] <u>selectively</u> hybridizes under wash conditions of [30] <u>at least 45°</u> C and less than [2M] <u>500 mM</u> salt to SEQ ID NO: 1[; or

b) exhibits at least about 85% identity over a stretch of at least about 30 nucleotides to a rodent 499E9].

16. The nucleic acid of Claim 15, wherein:

a) said wash conditions are at [45] <u>least 55°</u> C [and/or 500] <u>and less than 150</u> mM salt; or

b) said [identity is at least 90% and/or said stretch is] <u>nucleic acid comprises</u> at least [55] <u>30 contiguous</u> nucleotides <u>of the coding portion of SEQ ID NO: 1</u>.

Please add new Claims 21-46 as follows:

--21. The composition of matter of Claim 1, which comprises the natural sequence 499E9 of SEQ ID NO: 2.

22. The recombinant 499E9 polypeptide of Claim 2, wherein said 100% identity is over at least 25 contiguous amino acids.

23. The substantially pure 499E9 polypeptide of Claim 2, wherein said 100% identity is over at least 30 contiguous amino acids.

24. The substantially pure 499E9 polypeptide of Claim 1, which has a length of at least 30 amino acids.

25. The substantially pure or recombinant 499E9 polypeptide of Claim 1, which is:

a) glycosylated;
b) a synthetic polypeptide;
c) attached to a solid substrate; or
d) conjugated to another chemical entity.

26. A composition comprising said 499E9 polypeptide of Claim 1 and an aqueous carrier.

27. The composition of Claim 26, formulated for oral, rectal, nasal, topical, or parenteral administration.

28. The nucleic acid of Claim 11, which comprises at least 22 contiguous nucleotides of the coding portion of SEQ ID NO: 1.

29. An isolated or recombinant nucleic acid which encodes a polypeptide or fusion protein of Claim 1, wherein said polypeptide is an antigenic peptide of Table 1 (see SEQ ID NO: 2).

30. The nucleic acid of Claim 29, which comprises at least 29 contiguous nucleotides of the coding portion of SEQ ID NO: 1.

31. An isolated or recombinant nucleic acid encoding a polypeptide of Claim 1, which exhibits 100% identity over the mature protein coding portion to a natural DNA encoding said 499E9.

32. A vector which encodes a 499E9 polypeptide of Claim 1 and comprises:

a) at least 35 contiguous nucleotides of the coding portion of SEQ ID NO: 1;

b) transcriptional regulatory sequences operably linked to said 499E9 coding sequence; or

c) an origin of replication.

33. The vector of Claim 32, comprising at least 41 contiguous nucleotides from the coding portion of SEQ ID NO: 1.

34. An isolated or recombinant nucleic acid encoding a polypeptide or fusion protein of Claim 1, wherein said nucleic acid:

a) is from a natural source;

b) comprises a detectable label;

c) comprises synthetic nucleotide sequence; or

d) comprises natural full length coding sequence.

35. An isolated or recombinant nucleic encoding a polypeptide of Claim 1, which is a hybridization probe for a gene encoding a tumor necrosis factor ligand family protein.

36. A cell comprising said nucleic acid of Claim 29.

37. A cell comprising said nucleic acid of Claim 31.

38. A cell comprising said nucleic acid of Claim 32.

39. A cell comprising said nucleic acid of Claim 34.

40. A kit comprising a compartment comprising a nucleic acid of Claim 34 and instructions for use or disposal of reagents in said kit.

41. A kit comprising a compartment comprising said nucleic acid of Claim 35 and instructions for use or disposal of reagents in said kit.

42. A method of making a protein, comprising culturing a cell of Claim 12 in an environment resulting in expressing said protein and recovering said protein.

43. A method of making a protein, comprising culturing a cell of Claim 29 in an environment resulting in expressing said protein and recovering said protein.

44. A method of making a protein, comprising culturing a cell of Claim 32 in an environment resulting in expressing said protein and recovering said protein.

45. A method of making a duplex nucleic acid comprising contacting a nucleic acid of Claim 29 with a complementary nucleic acid under selective hybridization conditions of at least 45° C and less than 500 mM salt, thereby forming said duplex.

46. A method of making a polynucleotide of Claim 11, comprising amplifying said polypeptide using PCR amplification methods.--